

## INVITATION TO BID

Town of Newington

The Town of Newington is accepting bids for Sidewalk Construction and Repair. All bids must be submitted in accordance with Town specifications and on forms supplied by the Town. Bid forms and specifications are available in the office of the Town Manager, 131 Cedar Street, Newington, Connecticut 06111. Bids will be received and opened publicly at 2:30 PM on July 10, 2009. The Town of Newington reserves the right to reject any or all bids, or to waive informalities if deemed in the best interest of the Town.

John Salomone  
Town Manager

Bid No. 1, 2009-10

TOWN OF NEWINGTON  
SIDEWALK CONSTRUCTION AND REPAIR  
GENERAL REQUIREMENTS

INTENT

The intent of these specifications is to select a Contractor to construct and repair sidewalks within the Town of Newington.

It is also the intent of these specifications to select a Contractor to repair sidewalks within the Town of Newington by the raising of slabs to grade through the method of mudjacking.

Prospective bidders may select to bid on either the “construction and repair” portion of the Bid Form (Items 1 through 9) or the “raising slabs to grade through the method of mudjacking” portion of the Bid Form (Item 10) or may bid all bid items.

The Town reserves the right to make either one or two separate awards (one for Items 1 through 9, inclusive, and one for Item 10) to the lowest responsible bidder for each respective portion.

BID PROCEDURES

All bids shall be submitted on forms provided by the Town of Newington and addressed to the Town Manager’s Office, Town Hall, 131 Cedar Street, Newington, CT 06111. Bids will be opened at 2:30 P.M. on July 10, 2009 in the Town Manager’s Office. Sealed bid envelopes shall be clearly labeled “BID NO. 1, 2009-10 Sidewalk Construction and Repair”. The Town reserves the right to waive informalities or to reject any or all bids when such action is deemed in the best interests of the Town. The Town reserves the right to delete such items as it deems necessary from these proposals. All exceptions of the bidder to the terms and specifications of this bid shall be made in writing and submitted in full with the Bid Form. For all other terms and specifications, submission of a bid constitutes acceptance by the bidder. The Town reserves the right to reject bids which contain one or more exceptions that are unacceptable to the Town. All prices bid by the Contractor shall be held firm until all work has been completed. The low bid will be determined by adding the totals of the various quantities for each item multiplied by the bid unit price. In the event of a math error or a discrepancy between the unit price and the total in the far right hand column for each item, the Town shall select the figure that is in the best interests of the Town and disregard the other.

TERMINATION

All work done as a result of this bid shall be completed to the satisfaction of the Town Manager. The Town reserves the right to terminate this agreement upon ten (10) calendar days written notice of failure by the Contractor to provide service to the satisfaction of the Town Manager. If the Contractor does not start the work within time limits identified by the Town or does not prosecute the work in accordance with these specifications to the satisfaction of the Town Manager, the Town of

Newington reserves the right to engage other Contractors and to charge the difference or extras in cost, if any, or to recover in bond.

### NONDISCRIMINATION

The Contractor shall agree and warrant that it will not discriminate or permit discrimination against any person or group of persons on the grounds of sex, race, color religion, age, marital status, ancestry, national origin, past history of mental disorder, mental retardation or physical disability or other basis in any manner prohibited by the laws of the United States, the State of Connecticut, or the Town of Newington.

### HOLD HARMLESS

The Contractor agrees to indemnify, defend and hold harmless the Town of Newington and its respective officers, employees, agents and/or servants against all demands, claims, actions or causes of actions, losses, damages, liabilities, costs and expenses, including without limitation, interest, penalties, court costs and reasonable attorney's fees, asserted against, resultant to, imposed upon or incurred by the Town of Newington resulting from or arising out of:

1. Any breach by the Contractor of the terms of the specifications, or
2. Any injuries (including death) sustained by or alleged to have been sustained by the officers, employees, agents and/or servants of the Town of Newington or the Contractor or subcontractors or material men, or
3. Any injuries (including death) sustained by or alleged to have been sustained by any member of the public or otherwise any or all persons, or
4. Any damage to property, real or personal, (including property of the Town of Newington or its respective officers, agents and servants)

caused in whole or in part by the acts or omissions of the Contractor, any subcontractor, or any material men or anyone directly or indirectly employed by them while engaged in the performance of any work for the Town of Newington.

### HAZARDOUS MATERIALS

The Contractor, when providing, using, storing, delivering or disposing of any toxic, hazardous or potentially dangerous materials, shall advise the Town, in writing, of the condition of such hazardous materials in advance of conducting any work and is responsible for protecting the Contractor's own employees, those of the Town, and all its' agents from the hazards associated with such materials. The Contractor shall furnish direction, precautions, or training, provided or made available from the supplier of the materials, or other acceptable source, for use by all persons who may be subject to the hazard. The Contractor shall comply with all applicable regulations and laws. The Contractor shall dispose of any hazardous or toxic substances in accordance with all applicable regulations or laws, including E.P.A. and D.O.T., and shall provide the Town with the appropriate generator E.P.A. number. The Contractor shall do all things necessary to insure that there will be no discharge, spillage, uncontrolled loss, seepage or filtration of any hazardous or toxic waste on the site caused by the Contractor's operations. The Contractor is responsible for any and all costs and liabilities

associated with the clean up of any such spillage, etc., or as required by any regulating authority, and holds the Town harmless against any current or future liabilities resulting from such an incident.

## INSURANCE

The successful bidder shall furnish a certificate of insurance to the Town Manager for the following insurance coverage within ten (10) days from contract execution. All insurance coverage shall be written with an insurance company licensed to conduct business in the State of Connecticut. Insurance coverage shall remain in full force for the duration of the contract term including any and all extensions. Such certificate of insurance shall specify that the Town of Newington will receive thirty (30) days notice of any cancellation, non-renewal or reduction in coverage and limits originally provided.

1. Commercial General Liability including Premises-Operations, Independent Contractors, Blanket Contractual, Products and Completed Operations:

\$1,000,000 Each Occurrence

\$1,000,000 Aggregate

Combined Single Limit for personal injury or property damage or both combined.

Such policy shall name the Town as additional insured.

2. Comprehensive Automobile Liability covering owned, non-owned, hired or leased vehicles.

\$1,000,000 Each Accident

Combined Single Limit for bodily injury or property damage or both combined.

3. Workers Compensation Insurance in accordance with Connecticut State Statutes.

Employers Liability Limit - \$100,000.

## PAYMENT

Payment for the work associated with this bid shall be made within thirty (30) days by the Town, following the completion of all work invoiced to the satisfaction of the Town Manager, as determined by inspection of the completed project the Town Engineer or his designated agent, and upon submission of an invoice to the Town of Newington Finance Department, 131 Cedar Street, Newington CT 06111. Payment for materials shall only be for materials already used or for materials stored on site at the job location. Frequency of invoices shall not exceed one per month. Payment for all items shall be made at the contract unit price for the actual amount of work required, performed and accepted.

The Town Engineer will make a check of the Contractor's monthly requisitions for partial payments to arrive at an estimate such as, in his opinion, shall be fair and just, of the materials in place and of

material suitability stored on the site and of the amount of work performed on the contract. In making such partial payments for the work, there shall be deducted ten percent (10%) of the estimated amount of each payment to be retained by the Town until after completion of the entire contract in an acceptable manner. The retainage will be kept for a one year period after acceptance of the project as a guarantee. It is recommended that measurements of work be done with the Town Engineer or his agent before estimate is submitted.

### STORAGE AND HANDLING

All materials and equipment shall be delivered, handled and stored in a manner which prevents the intrusion of foreign materials and damage by breakage or weather. Such storage, delivery, and handling shall not interfere with Town operations nor impede access to any public areas. All equipment shall be stored in a clean, dry location. Material which is damaged shall be replaced with new material at no additional cost to the Town.

### PROTECTION

Precaution for the protection of persons and property must be exercised at all times. The safety provisions of applicable laws, as well as building, fire and construction codes, shall be observed at all times. The Contractor shall take such additional safety and health measures as are reasonably necessary. Special precaution shall be taken to protect the work area from the elements during the course of the project, including the use of tarps or other protective covers as directed by the Town Engineer.

### CLEANUP

Removal of material to be replaced is the responsibility of the Contractor. All accumulated rubbish and debris shall be removed daily from the building and adjacent areas by the Contractor. Any such rubbish and debris shall not be placed in the Town's dumpster but shall be transported by the Contractor from the premises. All dumpster and trash disposal costs shall be included in the bid price. Any inflammable rubbish shall not be burned on the premises but shall be hauled away.

The work area(s) shall be left clean and ready for use by the Town. If the Contractor fails to properly clean up the job site the Town may do so or may hire another firm of its choosing to do so. In either case, the cost of such cleanup shall be charged to the Contractor.

The Contractor must remove all debris of every description daily and as the work progresses leaving the surroundings in a neat and orderly condition to the satisfaction of the Town Manager or his designated agent. Upon completion, and before acceptable and final payment, the Contractor shall remove from the site all equipment, forms, surplus material, rubbish and miscellaneous debris and leave the site in a neat and presentable condition. Rough grading should occur after forms are removed to avoid tripping hazards.

### APPEARANCE

All work shall be performed in a workmanlike and professional manner and shall be left with a neat appearance. All disturbed areas, both in and around the work site, shall be restored to their original condition. Any damage to a building, property or pavement resulting from this work shall be

repaired by the Contractor at no additional cost to the Town. All work shall be performed to the satisfaction of the Town Manager.

### QUALIFICATIONS

The Contractor shall be engaged in the business of constructing or repairing cement concrete sidewalks and shall also have experience in constructing bituminous sidewalks and driveways. The Contractor shall have demonstrated experience by having been in business (as the same business with the same name as submitted on the Bid Form) for at least three (3) years and by having successfully completed at least three (3) similar projects of both concrete and bituminous. If requested by the Town, the bidder shall provide a list of similar projects, with telephone numbers and contact persons, prior to the award of this bid. The Contractor shall have the required background, technical knowledge, and equipment, labor force and satisfactory prior work history to perform this work in a satisfactory manner. Failure to meet the qualifications of this section alone is sufficient grounds for rejection of the bid by the Town.

### WARRANTY

All installations shall be guaranteed by the Contractor for one (1) year against any defects. The one year period shall begin from the date all work on a particular project area is completed and accepted by the Town. In the event that a formal notice of acceptance is not issued by the Town, the check date of final payment for the project area shall be the date of acceptance. The Town shall withhold ten percent retainage for the one year warranty period and prior to the release of the Performance Bond.

### CONDITION

All material shall be new and unused prior to installation by the Contractor. All items installed shall be completely and properly functional, and installed to the full satisfaction of the Newington Town Manager, before payment will be processed by the Town.

### SUBCONTRACTORS

The Contractor shall not subcontract the work without written approval of the Town. A list of any and all subcontractors shall be supplied by the Contractor to the Town Engineer before work begins. The Town shall have the right to reject any subcontractor(s) and require the Contractor to find an alternative subcontractor. The Town will only contract with one firm for this work. All subcontractors shall have the required background, technical knowledge, equipment and satisfactory prior work history to perform their tasks in a satisfactory manner.

### BONDS

Performance, Labor and Materials Payment bonds in the amount of one hundred percent (100%) of the amount bid is required. Within ten calendar days following notice of any award the Contractor shall furnish Performance and Labor and Materials Payment bonds to the Town of Newington for the duration of the contract, covering faithful performance of the contract and payment of obligations arising hereunder. Such bonds shall be equal to one hundred percent (100%) of the full amount of the contract as a guarantee that the terms of the contract shall be complied with in every particular. These bonds shall be issued from a surety company either licensed or approved by the State of

Connecticut Insurance Commissioner and which has an A.M. Best's rating of A-VII or better. These bonds shall clearly state that on default by the Contractor the surety company shall pay all payable s associated with this job that are outstanding. A bid bond in the amount of ten per cent (10%) of the amount bid shall accompany each bid. The bid bond shall be either in the form of a certified check or a bond issued from a surety company either licensed or approved by the State of Connecticut Insurance Commissioner.

### DELIVERY

Delivery of items or commencement of project shall be within 10 days of purchase order issuance or notice to proceed.

### QUANTITITES

The work to be performed under this Section consists of removing and reconstructing bituminous concrete sidewalk, and removing and reconstructing damaged Portland cement concrete sidewalk at various locations as directed, and in accordance with these Specifications.

The Town's estimate of quantities are shown on the proposal sheet opposite the various items. This estimate is to be considered solely as a basis for comparing the proposals received, and is approximate and not guaranteed in any respect. The Town reserves the right at all times to increase or decrease the amount of work in order to remain within budget or if such action is otherwise deemed to be in the best interests of the Town of Newington.

### GENERAL SCOPE OF WORK

Work under this contract shall include all necessary cutting, excavation, materials, tools, labor and equipment incidental to the installation, repair or replacement of bituminous concrete and Portland cement concrete sidewalks and appurtenant work as designated by the Town Manager or his authorized agent.

### STATE STANDARDS

All materials and methods of construction shall be in accordance with the current specifications of the Town of Newington and the latest Connecticut Department of Transportation's standard specifications for roads, bridges and incidental construction, Form 816 or as amended. Specifications and sidewalk details are attached.

### AWARD

Notice of acceptance of bid will be given to the successful bidder by the Town by mail to bidders' address stated in Bid. If, within ten (10) calendar days immediately after receipt of Notice of Acceptance of Bid, the successful bidder shall fail or refuse to deliver the Performance and Labor & Material Payment Bonds properly executed, Bidder's Bid and Acceptance, at option of the Town, shall become null and void. The Bidder shall forfeit to the Town, as liquidated damages for such failure or refusal, the Bid Bond or certified check accompanying this Bid, and the Town may proceed to accept another of the Bids. Contractor shall start work under this contact and shall continue to

completion with all practical dispatch and regularity. Work shall be started and completed within times which Contractor has stated in the contract.

### TREES

Where roots of trees, branches, regardless of size, or any other obstruction interfere with proper installation of the sidewalk, the Contractor will furnish extra labor and necessary equipment to remove these obstructions as ordered by the Town Manager or his authorized agent, and do all necessary cutting and fitting without extra compensation therefore. Any tree removal shall be performed in accordance with Town ordinances and requirements.

### LAYOUT

The Town will provide the Contractor the listings of locations where sidewalk slabs need to be repaired or reconstructed. Construction mark out will be provided by the contractor. It shall also be the responsibility of the contractor for the "Call Before You Dig" notifications.

### PROTECTION OF THE PUBLIC, WORK AND PROPERTY

The Contractor shall take all proper precautions to protect from injury or unnecessary interference, and provide proper means of access in the event driveway access is cut off by the Contractor. The Contractor shall take all proper precautions to protect persons from injury or unnecessary inconvenience and leave an unobstructed way along the public and private place for travelers, vehicles and access to hydrants. The Town shall be held harmless for any claims against the Contractor.

The Contractor shall provide and maintain all necessary watchmen, barricades, flashing lights and warning signs and take all necessary precautions for the protection of the public. He shall continuously maintain adequate protection of all work against damage, and shall take all reasonable precautions for protection of the Town from injury or loss arising in connection with this Contract. He shall make good any damage injury or loss of his work and to the property of the Town resulting from lack of reasonable protective precautions, except such as may be to errors in the Contract Documents, or caused by agents or employees of the Town. He shall adequately protect adjacent private and public property, as provided by law and the Contract. No direct payment will be made for this item. Erosion controls may be requested if conditions are warranted and as determined by the Town Manager or his designated agent. All excavated areas shall be barricaded by the Contractor and lit with electrified flashers during the hours of darkness.

### SUSPENSION FOR WEATHER CONDITIONS

Should the work be carried on late in the year, and in the opinion of the Town Manager or his designated agent is in danger by reason of inclemency of weather or could not be finished in time to prevent such danger, the Contractor shall cease operations upon order of the Town Manager or his designated agent, and shall not resume them until ordered to do so by the Town Manager or his designated agent, when the weather conditions are favorable. The time of suspension should not be considered in the winter months. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances for use by the public during the time the work is suspended as herein provided without cost to the Town.



### UNSATISFACTORY PERFORMANCE

If, in the opinion of the Town Manager or his designated agent, the Contractor is not prosecuting the work at a sufficient rate of progress, so as to finish in time specified, or has abandoned said work or is not complying with the terms and stipulations of the contract and specifications, the Town Manager or his designated agent may serve notice on the Contractor to adopt such methods as will insure the completion of the work in the time specified or in compliance with the terms and stipulations of the contract and specifications.

If, within five (5) days after the Town Manager or his designated agent has notified the Contractor that his work is not carried on satisfactory as before mentioned, the Town Manager shall have the right to annul the Contract and manage the work under the direction of the Town Engineer or re-let, for the very best interest of the Town as a new Contract, the work remaining to be done without in any manner affecting or releasing the bond of defaulting Contractor. The cost of the work under said new contract, shall be considered extra cost to the Town of the work left undone by the defaulting Contractor, and may be recovered by the Town by calling the original bond.

### ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town of Newington harmless from loss when a particular manufacture, produce, or process is specified by the Town of Newington.

### PERMITS

Permits, license and temporary easements necessary for the prosecution of the work shall be secured and paid for by the Contractor. Property and easements for permanent structures or permanent changes in existing facilities shall be secured or paid for by the Town. No permit fee will be assessed for work within Town right-of-way.

The Contractor shall make arrangements with adjacent property owners such trespass as he may reasonably anticipate in the prosecution for the work. All such arrangements shall be reported in writing to the Town Engineer.

If this project involves work on a State Highway, the Contractor shall obtain a permit from District I, Connecticut Department of Transportation, Bureau of Highway, for work within said State Highway rights of way and shall be responsible for any permit fees, insurance certificates and bonds to obtain same.

### INSPECTION OF WORK

Concrete must be supplied by a State Certified Vendor. Certificate must be submitted to Town prior to delivery. The Town shall provide sufficient competent Engineering Personnel for supervision of the work. The Town Engineer and his representative shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

If the specifications, the Town Engineer or his designated agent; instructions, law ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Town Engineer or his designated agent timely notice of its readiness for inspection, and if the inspection is by another authority other than the Town Engineer or his designated agent, of the date for such inspection. Inspections by the Town Engineer or his designated agent shall be promptly made, and where practicable at the source of supply. If work should be covered up without approval or consent of the Town Engineer or his designated agent, it must, if required by the Town Engineer or his designated agent be uncovered for examination and properly restored at the Contractor's expense. A 24-hour notice for all inspections shall be made to the Engineering Department at 665-8570, during normal office hours of 8:30 a.m. to 4:30 p.m.

Re-inspection of any work may be ordered by the Town Engineer or his designated agent and, if so ordered, the work must be uncovered by the Contractor. If work is found to be in accordance with the Contract Document, the Town shall pay the cost of re-inspection and replacement. If such work is not in accordance with the Contract Document, the Contractor shall pay such cost.

The contractor shall notify the Engineering Department for inspections. Inspections will be required to accept the line and grade, forms, stone base, and concrete. If the concrete does not comply with slump specifications, the inspector or agent has the right to reject the load at no expense to the Town. Water will not be allowed to be added to the concrete mix without permission from the inspector.

#### EXISTING IMPROVEMENTS

The Contractor shall conduct his work so as to minimize damage to existing improvements, except where specifically stated in the specifications or drawings, it will be the responsibility of the Contractor to restore, as nearly as practical to their original condition all improvements on public or private property, at the contractors expense.

The Contractor shall give ample notice to the various utilities so that the Contractor shall cooperate and coordinate his work so that the least interference is caused by the utilities. The Contractor shall support all utility lines uncovered due to trench excavation. Final utility depths and locations shall be coordinated between the contractor and the utility company.

Toll-free call before you dig number should be contacted 72 hours in advance of any excavation. (1-800-922-4455).

#### TRAFFIC AND SAFETY

The Contractor shall provide such barricades, signs, warning, flagmen or police and shall conduct his work in such a manner so the hazards to vehicular and pedestrian traffic are at a minimum. If, in the opinion of the Town Engineer additional precautions or measures should be taken in the interest of public safety, the Contractor shall so comply. If the Contractor finds it necessary to close a portion of the road to vehicular traffic, the approval of the Legal Traffic Authority shall be obtained. The Contractor shall notify the Fire and Police Department and any other concerned agencies of such road closing. Access shall be provided at all times to fire hydrants and precautions shall be taken to prevent freezing of any exposed or partially uncovered waterlines.

## PROPERTY MARKERS

Property line pins and concrete bound markers are to be protected during sidewalk construction. Any markers moved or destroyed during construction are to be reset by a State of Connecticut Licensed Land surveyor at the Contractor's expense.

## LIQUIDATED DAMAGES

The contractor agrees to pay the Owner liquidated damages in the amount of one hundred dollars (\$100.00) per day for each day of delay over and above the completion date specified in this contract. If the Contractor ceases operation for ten (10) working days cumulative or consecutive, the owner shall reserve the right to consider the contract void and the performance bond shall be forfeited to the Town of Newington.

## ASSIGNMENTS

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or any portion thereof, or of the work provided therein, or of his right, title or interest therein, to any person, firm partnership or corporation without the written consent of the Director. If any part of the work is sublet, sold, transferred assigned or otherwise disposed of, the Contractor will not be relieved of any responsibility in connection therewith.

## UNIT PRICES

The prices herein are made a part of this contract upon execution and will remain in effect until the completion of the project and cannot be renegotiated due to changes in cost of materials or labor costs.

## COMPLETION DATE

The Contractor shall have sixteen (16) weeks to complete the work from date of notice to proceed. Since the re-establishment of lawns may be beyond the sixteen (16) week period, the Contractor will be expected to return in the fall. A written request for extension due to unusual circumstances may be granted by the Town Engineer. Fall seeding is to take place between August 15<sup>th</sup> and October 15<sup>th</sup>.

## TIME OF WORK

No work will be allowed between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday. No work will be allowed at any time on Saturdays, Sundays, and Holidays unless authorized by the Town Engineer. If work is authorized, then inspection will be required at the contractors expense.

## WORK LIMITS

Contract limit lines for all sidewalk work are one foot beyond the edge of walk unless otherwise directed by the Town Engineer or his designated agent. Any areas disturbed outside this area by the Contractor are the responsibility of the Contractor.

TOWN OF NEWINGTON  
SIDEWALK CONSTRUCTION AND REPAIR

SPECIAL PROVISIONS

- A. The intent of these specifications is to obtain a contractor for sidewalk installation and repair at various locations throughout the Town of Newington. Sites are yet to be determined. The nature of the repairs will be raising, lowering, removing and replacing existing sidewalk slabs and new construction. The Town will attempt to parcel the work in lots, by street, in order to minimize the inconvenience to the successful bidder. All work done under these specifications is to be accomplished in accordance with these specifications, or the State of Connecticut Department of Transportation's Standard Specifications for Roads, Bridges, and Incidental Construction, Form 816 dated 2004, as amended, plus any supplemental specifications thereto of the latest date (if a conflict exists with the Town's specifications, the Town's specifications shall govern).
- B. The Contractor shall be prepared to start work within the specified time and have adequate labor, materials, and equipment available to dedicate to this project to insure completion within the specified time frame.
- C. Contract limit lines for all sidewalk work are one foot beyond the edge of walk unless otherwise identified by the Town Engineer or his designated agent. Any areas disturbed outside this area by the Contractor are the responsibility of the Contractor.
- D. Payment for sidewalk construction and repair will be for the following bid items and units of measurement:

ITEM

- 1. Install bituminous concrete sidewalks, residential drives, aprons and patches per square yard
- 2. Install new 5 (five) inch Portland cement concrete sidewalk per square foot(Existing Base)
- 3. Install new 5 (five) inch Portland cement concrete sidewalk per square foot(New Base)
- 4. Install new 5(five) inch Portland cement concrete sidewalk with monolithic concrete curb per square foot.
- 5. Install new 8 (eight) inch Portland cement concrete sidewalk per square foot(Existing Base)
- 6. Install new 8 (eight) inch Portland cement concrete sidewalk per square foot(New Base)
- 7. Install new 8 (eight) inch Portland cement concrete Handicap Ramp with Tactile Warning Pad per square foot(Complete)
- 8. Processed Aggregate Stone
- 9. Dowels
- 10. Square foot of sidewalk slabs raised\*(by Method of Mudjacking) to grade.

\* raised = "by method of 'Mudjacking'" (i.e. the process of raising slabs by means of pumping an admixture through drilled holes in a slab)

ITEM 1: Install bituminous concrete sidewalk, residential driveways, aprons, patches

SCOPE OF WORK

Work under this item shall consist of constructing bituminous concrete sidewalks constructed on a processed stone aggregate base course. Work under this section shall include saw cutting, removal and disposal of excess and bituminous concrete sidewalk material, proper base compaction and installation of a Class 2 bituminous concrete sidewalk to a compacted depth of 2 inches and shall be paid at the bid unit price per square yard.

MATERIALS

Materials for the construction of sidewalks, residential driveways, aprons and patches shall conform to Form 816, Section 9.22.02, except that:

- A. Base material shall be "Processed Aggregate" base conforming to requirements of sub-articles M.05.01-01 "Processed Aggregate Base". Reclaimed processed aggregate base will **not** be accepted.
- B. Suitable subbase material shall be bank or crushed gravel meeting the applicable provisions of Form 816, Section M.02.02.1, and approved by the Engineer.
- C. Tack coat material shall conform to Form 816, Section M.04.01.

CONSTRUCTION METHODS

All bituminous concrete sidewalk and residential driveway construction shall be excavated or filled 10 inches below finished grade and extended 3 inches minimum beyond the outside edges of the proposed walk, drive or bituminous concrete lip curbing (if curbing is installed). The subbase shall be properly graded to form a uniform base, and shall follow a true line and cross-section 10 inches below the finished grade of the pavement. Any material, which, in the opinion of the Engineer, is unsuitable to receive the base material, shall be excavated, removed, disposed and replaced with suitable material and compacted as approved by the Engineer. Leveling material used to fill ruts, holes or irregularities in the subbase is the responsibility of the Contractor and is considered part of this item. The base shall be 8 inches of "Processed Aggregate" base as specified and shall be compacted in two 4 inch lifts utilizing a roller weighing a minimum of 2000 pounds. Compaction shall be uniform and the surface of the base shall follow a true line and cross section 2 inches below the finish grade of the walk/drive. At any point where new pavement will match existing pavement, the existing pavement shall be saw cut vertically to a smooth edge and a tack coat shall be applied, and after placement of the pavement, the joint shall be sealed with a hot asphalt material, AC-20 or approved equivalent. The bituminous concrete shall be placed, and compacted to a depth of 2 inches using a roller weighing a minimum of 2,000 pounds.

Driveways shall be installed full width, with no cold joints, unless prior approval is granted by the Engineer to install driveways in sections. Subbase, if required, shall be placed in maximum 4 inch lifts and compacted with a minimum of 2 passes with a motor drive vibratory compactor.

#### MEASUREMENT

Measurement for this item will be based on the number of square yards completed and accepted in place. This area shall include the area under and beyond the back of the bituminous concrete lip curbing.

#### PAYMENT

Payment for this item will be based on the contract unit price per Square Yard including all labor, excavation, backfill, disposal of surplus material, materials, tools, testing, lawn restoration and equipment necessary to complete the work as specified.

PAY ITEM	PAY UNIT
Bituminous Concrete Sidewalk, Residential Driveways, aprons and patches	S. Y.

ITEM 2: Install New 5 (five) inch Portland cement concrete sidewalk (Existing Base)

#### SCOPE OF WORK

Work under this item shall include all work necessary to install the sidewalk and to obtain finished grades adjacent to the walk. Payment will be made at the bid unit price per square foot for installing 5 (five) inch cement concrete sidewalk, which price shall include all labor, saw cutting, root cutting disposal, materials, backfilling, tools, equipment and incidentals thereto.

It shall be the responsibility of the Contractor to find an approved location to dispose of all surplus excavated materials, removed bituminous concrete pavements, removed cement concrete sidewalk slabs, stumps and unsuitable material.

The Contractor shall notify the Town of the approved disposal location to be utilized prior to commencing work under this contract.

#### MATERIALS

Concrete shall conform to Form 816, Section M.03 and be six percent (6%) Air-entrained Class "F" 1:2:3 with ¾ inch stone with a minimum compression strength of 4000 psi. Concrete shall be placed at a slump of no greater than 3 inches and shall only be placed when suitable temperatures prevail. (See Town of Newington Sidewalk Specifications and Details attached)

#### CONSTRUCTION METHODS      Partial Reconstruction

##### 1.      Excavation:

After inspection and approval by the Inspector, the method of construction for areas of sidewalk designated as partial reconstruction shall be as follows:

The sidewalk shall be saw cut to a smooth vertical edge prior to removal. Leveling material used to fill ruts, holes or irregularities in the base is the responsibility of the contractor and is considered part of this item. The leveling material shall be "Processed Aggregate" (Approximately 1" processed aggregate throughout the length of the walk to be replaced). base as specified and shall be compacted with at least two (2) passes of a motor driven vibratory compactor. Compaction shall be uniform and the surface of the base shall follow a true line and cross-section 5 inches below the finish grade of the walk. At any point where new concrete sidewalk will match existing concrete sidewalk, an isolation joint shall be used complete with dowels drilled to 8 inches.

Material used shall be "Processed stone Aggregate". It shall be placed meeting Town Specifications in one leveling course **not** to exceed 4" and compacted thoroughly by suitable machinery. Sections of walk requiring leveling courses in excess of 4" will be required to meet the specifications of "Install new 5 (five) inch Portland cement concrete per square foot (Complete)" Work under this item shall include removal and disposal of existing or unsuitable material, installation of processed stone base, all labor materials, tools, equipment and incidental thereto and be paid at the bid unit price per square foot of materials placed.

Reclaimed processed aggregate base will **not** be accepted.

## 2. Forms

Forms shall be of metal, straight and of sufficient strength to resist springing from impact. The form shall be of minimum depth equal to that of the sidewalk and shall be securely staked, braced and held firm to the line and grade and shall be tight to prevent leakage. All forms shall be cleaned and oiled each time they are used for a pour. The cross-slope of the sidewalk shall be 1/4 inch per foot pitching toward the road or as directed by the Town Engineer or his agent to meet existing conditions.

The use of wood forms in place of metal forms must be approved by the Town Engineer prior to the wood arriving on site. If wood forms are approved, they shall conform to the following:

For 5 inch thick sidewalk, 2" x 6" wood may be used for forms, however, 2" x 4" or 5/4 x 4 forms will not be permitted. Raddi may be formed with plywood if properly pinned and supported.

Prior to the placement of concrete in the forms, the sub grade shall be thoroughly dampened so that it is moist throughout, but without puddles of water. When the concrete has been placed in the forms, struck off to grade and allowed to partially set (when all the water and water sheen has left the surface), said time not to exceed one (1) hour, the surface shall be floated with a wooden float. After floating, the surface shall be floated with a steel trowel until a smooth even surface is obtained, and then it shall be broomed to satisfactory finish with a fine bristle broom. Care shall be taken not to bring an excess of sand or water to the surface by over brooming. Tooled joints (depth = one-fourth the sidewalk depth) shall be formed every five (5) feet with a jointing tool. A jointer shall be used to form a rounded edge not exceeding 1/4 inch radius at all surface edges. Joint marks shall be troweled off to leave a smooth uninterrupted or marked surface over the entire sidewalk.

3. Premolded Joint Material:

Premolded joint material shall be Kork Pak, Proflex, Reflex or equivalent approved by the Engineer. Expansion joints shall be placed every 15 feet from the beginning and at the end of every pour and where 5 inch thick walk meets 8 inch thick walk. Expansion joints shall be placed in the forms before concrete is poured and will not be permitted to be pushed through wet concrete.

4. Curing Materials:

Curing covers shall be cotton mats, waterproof paper, or liquid membrane curing compound. Lighted barricades shall be placed around new walks and all excavations at the end of the work day.

Adjustments to curbing and relocation of signs, mailboxes or fences shall be included in the general cost of the work. Waterproof paper shall be double sheet, bituminous cemented Kraft Paper, reinforced in both directions and conforming to the requirements of AASHTO M-139.

Polyethylene (i.e. Plastic) Sheeting shall not be allowed under any circumstances.

Liquid membrane-forming compound shall be white pigmented and conform to Form 816, Section M.03.01-10(c).

5. Payment

Payment for this item will be based on the contract unit price per Square Foot for 5 inch sidewalks, Complete Reconstruction including all labor, materials, tools, backfilling, lawn restoration and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
5" Portland Cement Concrete Sidewalk (Partial)	S. F.

ITEM 3: Install New 5 (five) inch Portland cement concrete sidewalk (New Base)

SCOPE OF WORK

Work under this item shall include all work necessary to install the sidewalk and to obtain finished grades adjacent to the walk. Payment will be made at the bid unit price per square foot for installing 5 (five) inch cement concrete sidewalk, which price shall include all labor, saw cutting, root cutting disposal, materials, backfilling, tools, equipment and incidentals thereto.

It shall be the responsibility of the Contractor to find an approved location to dispose of all surplus excavated materials, removed bituminous concrete pavements, removed cement concrete sidewalk slabs, stumps and unsuitable material.

The Contractor shall notify the Town of the approved disposal location to be utilized prior to commencing work under this contract.



## MATERIALS

Concrete shall conform to Form 816, Section M.03 and be six percent (6%) Air-entrained Class “F” 1:2:3 with ¾ inch stone with a minimum compression strength of 4000 psi. Concrete shall be placed at a slump of no greater than 3 inches and shall only be placed when suitable temperatures prevail. (See Town of Newington Sidewalk Specifications and Details attached)

## CONSTRUCTION METHODS      Complete Reconstruction

### 1.      Excavation:

After inspection and approval by the Inspector, the method of construction for areas of sidewalk designated as complete reconstruction shall be as follows:

All proposed 5 inch walks shall be excavated 13 inches below and parallel to the finished grade of the walk. Excavation shall extend three (3) inches minimum and six (6) inches maximum outside the edges of the proposed walk. Ledge rock encountered within thirteen (13) inches of the finished walk grade shall be removed. After completion of excavation, and prior to placing of base material, the sub-base shall be compacted by at least two (2) passes of a motor driven vibratory compactor; should the sub-base appear soft and yielding, this material shall be removed to firm ground with a maximum depth of twenty-five (25) inches below finished grade as ordered by the Engineer. The sub-grade shall then be re-compacted as herein before specified.

Material used shall be “Processed stone Aggregate”. It shall be placed meeting Town Specifications in two separate lifts of 4” and compacted thoroughly by suitable machinery. Work under this item shall include removal and disposal of existing or unsuitable material, installation of processed stone base, all labor materials, tools, equipment and incidental thereto and be paid at the bid unit price per square foot of materials placed.

Reclaimed processed aggregate base will **not** be accepted.

The sidewalk shall be saw cut to a smooth vertical edge prior to removal. At any point where new concrete sidewalk will match existing concrete sidewalk, an isolation joint shall be used complete with dowels drilled to 8 inches.

### 2.      Forms

Forms shall be of metal, straight and of sufficient strength to resist springing from impact. The form shall be of minimum depth equal to that of the sidewalk and shall be securely staked, braced and held firm to the line and grade and shall be tight to prevent leakage. All forms shall be cleaned and oiled each time they are used for a pour. The cross-slope of the sidewalk shall be ¼ inch per foot pitching toward the road or as directed by the Town Engineer or his agent to meet existing conditions.

The use of wood forms in place of metal forms must be approved by the Town Engineer prior to the wood arriving on site. If wood forms are approved, they shall conform to the following:

For 5 inch thick sidewalk, 2" x 6" wood may be used for forms, however, 2" x 4" or 5/4 x 4 forms will not be permitted. Radii may be formed with plywood if properly pinned and supported.

Prior to the placement of concrete in the forms, the sub grade shall be thoroughly dampened so that it is moist throughout, but without puddles of water. When the concrete has been placed in the forms, struck off to grade and allowed to partially set (when all the water and water sheen has left the surface), said time not to exceed one (1) hour, the surface shall be floated with a wooden float. After floating, the surface shall be floated with a steel trowel until a smooth even surface is obtained, and then it shall be broomed to satisfactory finish with a fine bristle broom. Care shall be taken not to bring an excess of sand or water to the surface by over brooming. Tooled joints (depth = one-fourth the sidewalk depth) shall be formed every five (5) feet with a jointing tool. A jointer shall be used to form a rounded edge not exceeding 1/4 inch radius at all surface edges. Joint marks shall be troweled off to leave a smooth uninterrupted or marked surface over the entire sidewalk.

3. Pre-molded Joint Material:

Pre-molded joint material shall be Kork Pak, Proflex, Reflex or equivalent approved by the Engineer. Expansion joints shall be placed every 15 feet from the beginning and at the end of every pour and where 5 inch thick walk meets 8 inch thick walk. Expansion joints shall be placed in the forms before concrete is poured and will not be permitted to be pushed through wet concrete.

4. Curing Materials:

Curing covers shall be cotton mats, waterproof paper, or liquid membrane curing compound. Lighted barricades shall be placed around new walks and all excavations at the end of the work day.

Adjustments to curbing and relocation of signs, mailboxes or fences shall be included in the general cost of the work. Waterproof paper shall be double sheet, bituminous cemented Kraft Paper, reinforced in both directions and conforming to the requirements of AASHTO M-139.

Polyethylene (i.e. Plastic) Sheeting shall not be allowed under any circumstances.

Liquid membrane-forming compound shall be white pigmented and conform to Form 816, Section M.03.01-10(c).

5. Payment

Payment for this item will be based on the contract unit price per Square Foot for 5 inch sidewalks, Complete Reconstruction including all labor, materials, tools, backfilling, lawn restoration and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
5" Portland Cement Concrete Sidewalk (Complete)	S. F.

ITEM 4: Install New 5 (five) inch Portland cement concrete sidewalk with monolithic concrete curb.

#### SCOPE OF WORK

Work under this item shall include all work necessary to install a combination curb and sidewalk as shown on the attached details. Payment will be made at the bid unit price per square foot for installing 5 (five) inch cement concrete sidewalk, which price shall include all labor, saw cutting, root cutting disposal, materials, backfilling, tools, equipment and incidentals thereto.

It shall be the responsibility of the Contractor to find an approved location to dispose of all surplus excavated materials, removed bituminous concrete pavements, removed cement concrete sidewalk slabs, stumps and unsuitable material.

The Contractor shall notify the Town of the approved disposal location to be utilized prior to commencing work under this contract.

#### MATERIALS

Concrete shall conform to Form 816, Section M.03 and be six percent (6%) Air-entrained Class "F" 1:2:3 with  $\frac{3}{4}$  inch stone with a minimum compression strength of 4000 psi. Concrete shall be placed at a slump of no greater than 3 inches and shall only be placed when suitable temperatures prevail. (See Town of Newington Sidewalk Specifications and Details attached)

#### CONSTRUCTION METHODS Complete Reconstruction

##### 1. Excavation:

After inspection and approval by the Inspector, the method of construction for areas of sidewalk designated as complete reconstruction shall be as follows:

All proposed 5 inch walks shall be excavated 13 inches below and parallel to the finished grade of the walk. Excavation shall extend three (3) inches minimum and six (6) inches maximum outside the edges of the proposed walk. Ledge rock encountered within thirteen (13) inches of the finished walk grade shall be removed. After completion of excavation, and prior to placing of base material, the sub-base shall be compacted by at least two (2) passes of a motor driven vibratory compactor; should the sub-base appear soft and yielding, this material shall be removed to firm ground with a maximum depth of twenty-five (25) inches below finished grade as ordered by the Engineer. The sub-grade shall then be re-compacted as herein before specified.

Material used shall be "Processed Stone Aggregate". It shall be placed meeting Town Specifications in two separate lifts of 4" and compacted thoroughly by suitable machinery. Work under this item shall include removal and disposal of existing or unsuitable material, installation of processed stone base, all labor materials, tools, equipment and incidental thereto and be paid at the bid unit price per square foot of materials placed.

Reclaimed processed aggregate base will **not** be accepted.

The sidewalk shall be saw cut to a smooth vertical edge prior to removal. At any point where new concrete sidewalk will match existing concrete sidewalk, an isolation joint shall be used complete with dowels drilled to 8 inches.

## 2. Forms

Forms shall be of metal, straight and of sufficient strength to resist springing from impact. The form shall be of minimum depth equal to that of the sidewalk and shall be securely staked, braced and held firm to the line and grade and shall be tight to prevent leakage. All forms shall be cleaned and oiled each time they are used for a pour. The cross-slope of the sidewalk shall be ¼ inch per foot pitching toward the road or as directed by the Town Engineer or his agent to meet existing conditions. The use of wood forms in place of metal forms must be approved by the Town Engineer prior to the wood arriving on site. If wood forms are approved, they shall conform to the following:

For 5 inch thick sidewalk, 2" x 6" wood may be used for forms; however, 2" x 4" or 5/4 x 4 forms will not be permitted. Radii may be formed with plywood if properly pinned and supported.

Prior to the placement of concrete in the forms, the sub grade shall be thoroughly dampened so that it is moist throughout, but without puddles of water. When the concrete has been placed in the forms, struck off to grade and allowed to partially set (when all the water and water sheen has left the surface), said time not to exceed one (1) hour, the surface shall be floated with a wooden float. After floating, the surface shall be floated with a steel trowel until a smooth even surface is obtained, and then it shall be broomed to satisfactory finish with a fine bristle broom. Care shall be taken not to bring an excess of sand or water to the surface by over brooming. Tooled joints (depth = one-fourth the sidewalk depth) shall be formed every five (5) feet with a jointing tool. A jointer shall be used to form a rounded edge not exceeding ¼ inch radius at all surface edges. Joint marks shall be troweled off to leave a smooth uninterrupted or marked surface over the entire sidewalk.

## 3. Pre-molded Joint Material:

Pre-molded joint material shall be Kork Pak, Proflex, Reflex or equivalent approved by the Engineer. Expansion joints shall be placed every 15 feet from the beginning and at the end of every pour and where 5 inch thick walk meets 8 inch thick walk. Expansion joints shall be placed in the forms before concrete is poured and will not be permitted to be pushed through wet concrete.

## 4. Curing Materials:

Curing covers shall be cotton mats, waterproof paper, or liquid membrane curing compound. Lighted barricades shall be placed around new walks and all excavations at the end of the work day.

Adjustments to curbing and relocation of signs, mailboxes or fences shall be included in the general cost of the work. Waterproof paper shall be double sheet, bituminous cemented Kraft Paper, reinforced in both directions and conforming to the requirements of AASHTO M-139.

Polyethylene (i.e. Plastic) Sheeting shall not be allowed under any circumstances.

Liquid membrane-forming compound shall be white pigmented and conform to Form 816, Section M.03.01-10(c).

5. Payment

Payment for this item will be based on the contract unit price per Square Foot for 5 inch sidewalks, Complete Reconstruction including all labor, materials, tools, backfilling, lawn restoration and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
5" Portland Cement Concrete Sidewalk (Complete)	S. F.

ITEM 5: Install new 8 (eight) inch Portland cement concrete sidewalk (Existing Base)

SCOPE OF WORK

Work under this item shall include all work necessary to install the sidewalk and to obtain finished grades adjacent to the walk. Payment will be made at the bid unit price per square foot for installing 8 (Eight) inch cement concrete sidewalk, which price shall include all labor, saw cutting, root cutting disposal, materials, backfilling, tools, equipment and incidentals thereto.

It shall be the responsibility of the Contractor to find an approved location to dispose of all surplus excavated materials, removed bituminous concrete pavements, removed cement concrete sidewalk slabs, stumps and unsuitable material.

The Contractor shall notify the Town of the approved disposal location to be utilized prior to commencing work under this contract.

MATERIALS

Concrete shall conform to Form 816, Section M.03 and be six percent (6%) Air-entrained Class "F" 1:2:3 with ¾ inch stone with a minimum compression strength of 4000 psi. Concrete shall be placed at a slump of no greater than 3 inches and shall only be placed when suitable temperatures prevail. (See Town of Newington Sidewalk Specifications and Details attached)

CONSTRUCTION METHODS Partial Reconstruction

1. Excavation:

After inspection and approval by the Inspector, the method of construction for areas of sidewalk designated as partial reconstruction shall be as follows:

The sidewalk shall be saw cut to a smooth vertical edge prior to removal. Leveling material used to fill ruts, holes or irregularities in the base is the responsibility of the contractor and is considered part of this item. The leveling material shall be "Processed Aggregate" (Approximately 1" processed aggregate throughout the length of the walk to be replaced). base as specified and shall be compacted with at least two (2) passes of a motor driven vibratory compactor. Compaction shall be uniform and the surface of the base shall follow a true line and cross-section 5 inches below the finish grade of the Bid No. 1, 2009-10

walk. At any point where new concrete sidewalk will match existing concrete sidewalk, an isolation joint shall be used complete with dowels drilled to 8 inches.

Material used shall be "Processed stone Aggregate". It shall be placed meeting Town Specifications in one leveling course **not** to exceed 4" and compacted thoroughly by suitable machinery. Sections of walk requiring leveling courses in excess of 4" will be required to meet the specifications of "Install new 8 (eight) inch Portland cement concrete per square foot (Complete)" Work under this item shall include removal and disposal of existing or unsuitable material, installation of processed stone base, all labor materials, tools, equipment and incidental thereto and be paid at the bid unit price per square foot of materials placed.

Reclaimed processed aggregate base will **not** be accepted.

2. Forms

Forms shall be of metal, straight and of sufficient strength to resist springing from impact. The form shall be of minimum depth equal to that of the sidewalk and shall be securely staked, braced and held firm to the line and grade and shall be tight to prevent leakage. All forms shall be cleaned and oiled each time they are used for a pour. The cross-slope of the sidewalk shall be ¼ inch per foot pitching toward the road or as directed by the Town Engineer or his agent to meet existing conditions. The use of wood forms in place of metal forms must be approved by the Town Engineer prior to the wood arriving on site. If wood forms are approved, they shall conform to the following:

At driveways where 8 inch thick sidewalk is to be installed, 2" x 8" wood forms may be used provided the sidewalk is formed to the full depth. Radii may be formed with plywood if properly pinned and supported. All driveway installations shall include 6"x 6" No. 8 gauge welded wire fabric and shall be installed 1/3 the thickness from the base.

Prior to the placement of concrete in the forms, the sub grade shall be thoroughly dampened so that it is moist throughout, but without puddles of water. When the concrete has been placed in the forms, struck off to grade and allowed to partially set (when all the water and water sheen has left the surface), said time not to exceed one (1) hour, the surface shall be floated with a wooden float. After floating, the surface shall be floated with a steel trowel until a smooth even surface is obtained, and then it shall be broomed to satisfactory finish with a fine bristle broom. Care shall be taken not to bring an excess of sand or water to the surface by over brooming. Tooled joints (depth = one-fourth the sidewalk depth) shall be formed every five (5) feet with a jointing tool. A jointer shall be used to form a rounded edge not exceeding ¼ inch radius at all surface edges. Joint marks shall be troweled off to leave a smooth uninterrupted or marked surface over the entire sidewalk.

3. Pre-molded Joint Material:

Pre-molded joint material shall be Kork Pak, Proflex, Reflex or equivalent approved by the Engineer. Expansion joints shall be placed every 15 feet from the beginning and at the end of every pour and where 5 inch thick walk meets 8 inch thick walk. Expansion joints shall be placed in the forms before concrete is poured and will not be permitted to be pushed through wet concrete.

4. Curing Materials:

Curing covers shall be cotton mats, waterproof paper, or liquid membrane curing compound. Lighted barricades shall be placed around new walks and all excavations at the end of the work day.

Adjustments to curbing and relocation of signs, mailboxes or fences shall be included in the general cost of the work. Waterproof paper shall be double sheet, bituminous cemented Kraft Paper, reinforced in both directions and conforming to the requirements of AASHTO M-139.

Polyethylene (i.e. Plastic) Sheeting shall not be allowed under any circumstances.

Liquid membrane-forming compound shall be white pigmented and conform to Form 816, Section M.03.01-10(c).

5. Payment

Payment for this item will be based on the contract unit price per Square Foot for 8 inch sidewalks, Complete Reconstruction including all labor, materials, tools, backfilling, lawn restoration and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
8" Portland Cement Concrete Sidewalk (Partial)	S. F.

ITEM 6: Install New 8 (Eight) inch Portland cement concrete sidewalk (New Base)

SCOPE OF WORK

Work under this item shall include all work necessary to install the sidewalk and to obtain finished grades adjacent to the walk. Payment will be made at the bid unit price per square foot for installing 8 (Eight) inch cement concrete sidewalk, which price shall include all labor, saw cutting, root cutting disposal, materials, backfilling, tools, equipment and incidentals thereto.

It shall be the responsibility of the Contractor to find an approved location to dispose of all surplus excavated materials, removed bituminous concrete pavements, removed cement concrete sidewalk slabs, stumps and unsuitable material.

The Contractor shall notify the Town of the approved disposal location to be utilized prior to commencing work under this contract.

MATERIALS

Concrete shall conform to Form 816, Section M.03 and be six percent (6%) Air-entrained Class "F" 1:2:3 with ¾ inch stone with a minimum compression strength of 4000 psi. Concrete shall be placed at a slump of no greater than 3 inches and shall only be placed when suitable temperatures prevail. (See Town of Newington Sidewalk Specifications and Details attached)

## CONSTRUCTION METHODS Complete Reconstruction

### 1. Excavation:

All proposed 8 inch walks shall be excavated 13 inches below and parallel to the finished grade of the walk. Excavation shall extend three (3) inches minimum and six (6) inches maximum outside the edges of the proposed walk. Ledge rock encountered within thirteen (13) inches of the finished walk grade shall be removed. After completion of excavation, and prior to placing of base material, the sub-base shall be compacted by at least two (2) passes of a motor driven vibratory compactor; should the sub-base appear soft and yielding, this material shall be removed to firm ground with a maximum depth of twenty-five (25) inches below finished grade as ordered by the Engineer. The sub-grade shall then be re-compacted as herein before specified.

Material used shall be "Processed Stone Aggregate". It shall be placed meeting Town Specifications in two separate lifts of 4" and compacted thoroughly by suitable machinery. Work under this item shall include removal and disposal of existing or unsuitable material, installation of processed stone base, all labor materials, tools, equipment and incidental thereto and be paid at the bid unit price per square foot of materials placed.

Reclaimed processed aggregate base will **not** be accepted.

The sidewalk shall be saw cut to a smooth vertical edge prior to removal. Compaction shall be uniform and the surface of the base shall follow a true line and cross-section 13 inches below the finish grade of the walk. At any point where new concrete sidewalk will match existing concrete sidewalk, an isolation joint shall be used complete with dowels drilled to 8 inches.

### 2. Forms:

Forms shall be of metal, straight and of sufficient strength to resist springing from impact. The form shall be of minimum depth equal to that of the sidewalk and shall be securely staked, braced and held firm to the line and grade and shall be tight to prevent leakage. All forms shall be cleaned and oiled each time they are used for a pour. The cross-slope of the sidewalk shall be ¼ inch per foot pitching toward the road or as directed by the Town Engineer or his agent to meet existing conditions.

The use of wood forms in place of metal forms must be approved by the Town Engineer prior to the wood arriving on site. If wood forms are approved, they shall conform to the following:

At driveways where 8 inch thick sidewalk is to be installed, 2" x 8" wood forms may be used provided the sidewalk is formed to the full depth. Radii may be formed with plywood if properly pinned and supported. All driveway installations shall include 6"x 6" No. 8 gauge welded wire fabric and shall be installed 1/3 the thickness from the base.

Prior to the placement of concrete in the forms, the sub grade shall be thoroughly dampened so that it is moist throughout, but without puddles of water. When the concrete has been placed in the forms,



struck off to grade and allowed to partially set (when all the water and water sheen has left the surface), said time not to exceed one (1) hour, the surface shall be floated with a wooden float. After floating, the surface shall be floated with a steel trowel until a smooth even surface is obtained, and then it shall be broomed to satisfactory finish with a fine bristle broom. Care shall be taken not to bring an excess of sand or water to the surface by over brooming. Tooled joints (depth = one-fourth the sidewalk depth) shall be formed every five (5) feet with a jointing tool. A jointer shall be used to form a rounded edge not exceeding ¼ inch radius at all surface edges. Joint marks shall be troweled off to leave a smooth uninterrupted or marked surface over the entire sidewalk.

3. Pre-molded Joint Material:

Pre-molded joint material shall be Kork Pak, Proflex, Reflex or equivalent approved by the Engineer. Expansion joints shall be placed every 15 feet from the beginning and at the end of every pour and where 5 inch thick walk meets 8 inch thick walk. Expansion joints shall be placed in the forms before concrete is poured and will not be permitted to be pushed through wet concrete.

4. Curing Materials:

Curing covers shall be cotton mats, waterproof paper, or liquid membrane curing compound. Lighted barricades shall be placed around new walks and all excavations at the end of the work day.

Adjustments to curbing and relocation of signs, mailboxes or fences shall be included in the general cost of the work. Waterproof paper shall be double sheet, bituminous cemented Kraft Paper, reinforced in both directions and conforming to the requirements of AASHTO M-139.

Polyethylene (i.e. Plastic) Sheeting shall not be allowed under any circumstances.

Liquid membrane-forming compound shall be white pigmented and conform to Form 816, Section M.03.01-10(c).

5. Payment

Payment for this item will be based on the contract unit price per Square Foot for 8 inch sidewalks, Complete Reconstruction including all labor, materials, tools, backfilling, wire reinforcement lawn restoration and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
8" Portland Cement Concrete Sidewalk (Complete)	S. F.

ITEM 7: Install new 8"(eight) Portland Cement concrete Handicap Ramp with tactile warning pad per square foot.

This item is for locations where a proposed handicap ramp or existing non-conforming ramp meets existing bituminous concrete pavement.

SCOPE OF WORK

Work under this item shall include all work necessary to install the Handicap Ramp and to obtain finished grades adjacent to the Ramp Payment will be made at the bid unit price per square foot for installing 8 (Eight) inch Portland cement concrete Handicap Ramp with tactile warning pad, which price shall include all labor, saw cutting, root cutting disposal, materials, backfilling, warning pad tools, equipment and incidentals thereto.

It shall be the responsibility of the Contractor to find an approved location to dispose of all surplus excavated materials, removed bituminous concrete pavements, removed cement concrete sidewalk slabs, stumps and unsuitable material.

The Contractor shall notify the Town of the approved disposal location to be utilized prior to commencing work under this contract.

Work under this item shall conform to Town of Newington Sidewalk Specifications item 5 (Install new 8" Portland cement concrete sidewalk complete). Work under this item shall include all excavations, labor, materials, install & compacted processed stone base, pavement patching, curbing, Detectable Warning Strips and equipment. Payment will be made at the bid unit price per square foot.

This item shall include furnishing and installing Detectable Warning Strips in the locations and to the dimensions and details to be provided by the Town Engineer or his agent.

The Detectable Warning Strip shall be a prefabricated detectable warning surface tile as manufactured from Engineered Plastics Inc., 300 International Drive, Suite 100, Williamsville, NY 14221, telephone number (800) 682-2525 or an approved equal from ADA Fabricators, Inc., P.O. Box 179 North Billerica, MA 01862 telephone number (978) 262-9900. The tile shall conform to the dimensions provided by the Town Engineer or his agent and have a brick red homogeneous color throughout in compliance with Federal Standard 595A Color #22144, or approved equal.

The Detectable Warning Strip shall be set directly in poured concrete according to the manufacturer's specifications or as directed by the Town Engineer or his agent. The Contractor shall place two 25 pound concrete blocks or sandbags on each tile to prevent the tile from floating after installation in wet concrete.

The Detectable Warning strip will not be measured for payment. All materials, equipment, tools and labor incidental thereto shall be included in the bid unit price for this item.

#### MATERIALS

Concrete shall conform to Form 816, Section M.03 and be six percent (6%) Air-entrained Class "F" 1:2:3 with ¾ inch stone with a minimum compression strength of 4000 psi. Concrete shall be placed at a slump of no greater than 3 inches and shall only be placed when suitable temperatures prevail. (See Town of Newington Sidewalk Specifications and Details attached)

#### CONSTRUCTION METHODS Complete Reconstruction

##### 1. Excavation:

All proposed 8 inch Handicap Ramps shall be excavated 13 inches below and parallel to the finished grade of the walk. Excavation shall extend three (3) inches minimum and six (6) inches maximum outside the edges of the proposed walk. Ledge rock encountered within thirteen (13) inches of the finished walk grade shall be removed. After completion of excavation, and prior to placing of base material, the sub-base shall be compacted by at least two (2) passes of a motor driven vibratory compactor; should the sub-base appear soft and yielding, this material shall be removed to firm ground with a maximum depth of twenty-five (25) inches below finished grade as ordered by the Engineer. The sub-grade shall then be re-compacted as herein before specified.

Material used shall be "Processed Stone Aggregate". It shall be placed meeting Town Specifications in two separate lifts of 4" and compacted thoroughly by suitable machinery. Work under this item shall include removal and disposal of existing or unsuitable material, installation of processed stone base, all labor materials, tools, equipment and incidental thereto and be paid at the bid unit price per square foot of materials placed.

Reclaimed processed aggregate base will **not** be accepted.

## 2. Forms

Forms shall be of metal, straight and of sufficient strength to resist springing from impact. The form shall be of minimum depth equal to that of the sidewalk and shall be securely staked, braced and held firm to the line and grade and shall be tight to prevent leakage. All forms shall be cleaned and oiled each time they are used for a pour. The cross-slope of the sidewalk shall be 1/4 inch per foot pitching toward the road or as directed by the Town Engineer or his agent to meet existing conditions.

The use of wood forms in place of metal forms must be approved by the Town Engineer prior to the wood arriving on site. If wood forms are approved, they shall conform to the following:

At driveways where 8 inch thick sidewalk is to be installed, 2" x 8" wood forms may be used provided the sidewalk is formed to the full depth. Radii may be formed with plywood if properly pinned and supported. All driveway installations shall include 6"x6" No. 8 gauge welded wire fabric and shall be installed 1/3 the thickness from the base.

Prior to the placement of concrete in the forms, the sub grade shall be thoroughly dampened so that it is moist throughout, but without puddles of water. When the concrete has been placed in the forms, struck off to grade and allowed to partially set (when all the water and water sheen has left the surface), said time not to exceed one (1) hour, the surface shall be floated with a wooden float. After floating, the surface shall be floated with a steel trowel until a smooth even surface is obtained, and then it shall be broomed to satisfactory finish with a fine bristle broom. Care shall be taken not to bring an excess of sand or water to the surface by over brooming. Tooled joints (depth = one-fourth the sidewalk depth) shall be formed every five (5) feet with a jointing tool. A jointer shall be used to form a rounded edge not exceeding 1/4 inch radius at all surface edges. Joint marks shall be troweled off to leave a smooth uninterrupted or marked surface over the entire sidewalk.

## 3. Pre-molded Joint Material:

Pre-molded joint material shall be Kork Pak, Proflex, Reflex or equivalent approved by the Town Engineer. Expansion joints shall be placed every 15 feet from the beginning and at the end of every Bid No. 1, 2009-10

pour and where 5 inch thick walk meets 8 inch thick walk. Expansion joints shall be placed in the forms before concrete is poured and will not be permitted to be pushed through wet concrete.

4. Curing Materials:

Curing covers shall be cotton mats, waterproof paper, or liquid membrane curing compound. Lighted barricades shall be placed around new walks and all excavations at the end of the work day.

Adjustments to curbing and relocation of signs, mailboxes or fences shall be included in the general cost of the work. Waterproof paper shall be double sheet, bituminous cemented Kraft Paper, reinforced in both directions and conforming to the requirements of AASHTO M-139.

Polyethylene (i.e. Plastic) Sheeting shall not be allowed under any circumstances.

Liquid membrane-forming compound shall be white pigmented and conform to Form 816, Section M.03.01-10(c).

5. Payment:

Payment for this item will be based on the contract unit price per Square Foot for 8 inch Portland Cement Concrete Handicap Ramp with Tactile Warning Pad per square foot. Complete Reconstruction including all labor, materials, tools, backfilling, lawn restoration tactile warning pad, wire reinforcement curbing and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
Install new 8" Portland Cement Concrete Handicap Ramp with tactile warning pad	S. F.

ITEM 8: Processed Aggregate base

This item will be determined in the field by the Town Engineer or his agent. In areas where leveling material is needed, unsuitable base material is encountered, or tree roots have been removed, a new base shall be prepared.

SCOPE OF WORK

Work under this item shall include all work necessary to removal and disposal of existing or unsuitable material, install the Processed Aggregate stone and to level or obtain finished grade for the installation of subsequent Portland cement and/or Bituminous concrete.

Base must be excavated to 13" below finished grade for 5", 8" and Handicap Portland Cement concrete walk, 10" below finished grade for Bituminous concrete walk 8" below for bituminous concrete and varies for partial construction items. It shall be placed meeting Town Specifications in two separate lifts of 4" and compacted thoroughly by suitable machinery with a minimum of 2 (two) passes per lift.

MATERIALS

Material used shall be processed stone aggregate. All material under this item shall conform to the requirements of Subarticles M.05.01-1, M 05.01-2 and M 05.01-3.

#### METHOD OF MEASUREMENT

The quantity of material will be field verified by the Town Engineer **prior** to the installation of the surface treatment (Bituminous\Portland Concrete). The material will be measured during installation or after utilizing random inspection borings to verify depth. The contractor will refill and re-compact the inspection boring holes at no additional cost.

#### DETERMINATION OF THICKNESS

The thickness shall vary and be determined by the site conditions that prevail. It is the contractors responsibility to notify the Town Engineer (request for approval) **prior** to excavation and installation of processed aggregate in excess of the thickness of a leveling course(+/- 1" thickness) There will be no adjustment in quantity (addition) and no reimbursement for the contractor where processed aggregate has been placed (in excess of leveling) without the approval of the Town Engineer.

#### PAYMENT

Payment for this item will be based on the contract unit price per ton for Processed Aggregate Stone including all labor, materials, tools, and equipment necessary to complete the work as specified.

PAY ITEM	UNIT
Processed Aggregate Stone	TON

ITEM 9: Dowels

#### SCOPE OF WORK

This item shall consist of 5/8" diameter by 24" long steel dowel and expansion joint material. This material shall be furnished and placed in accordance with these specifications or as ordered by the Town Engineer or his designated agent.

#### MATERIALS AND CONSTRUCTION METHODS

This item shall apply only where new concrete sidewalk slabs or driveway and wheelchair ramps are constructed adjacent to an existing concrete slab. A 3/4" +/- 1/16" diameter hole must be drilled into the existing concrete and the dowel set 12" into the existing concrete. The length of dowel to be embedded in the new slab shall remain uncoated. If the diameter of the drilled hole into the existing concrete exceeds 13/16", the dowel is to be set and grouted 12" into the existing concrete. The length of the dowel to be embedded in the new slab shall be dipped or painted with hot 60-70 penetration asphalt cement, viscosity grade AC-20, conforming to the requirements of AASHTO M20.

Dowels shall be spaced 24" on center and located 12" from the edge of a concrete slab.

Dowels shall be intermediate grade steel conforming to AASHTO M-31, AASHTO M-137 and ASTM A-123.

Grout shall be non-shrink, non-staining and shall consist of a mixture of hydraulic cement, water, fine aggregates, and expansive mixture approved by the Town Engineer. The grout mix shall conform to the following requirements:

1. The grout mix shall have an unrestrained volumetric expansion of not less than 3% nor more than 8%;
2. The grout mix shall have a minimum seven (7) day compressive strength of 3,000 p.s.i. when tested by methods conforming to the requirements of ASTM C-109.
3. The water content of the grout shall be kept as low as possible for proper grouting. However, it shall not exceed five (5) gallons per sack of cement.

With the approval of the Town Engineer, the contractor may substitute a non-shrink premixed mortar, provided the contractor submits samples of the grout mix for testing and approval.

#### METHOD OF MEASUREMENT

This work will be measured for payment by the total number of dowels complete in place and accepted and shall include all expansion joint material used under this item.

#### PAYMENT

Payment will be made at the contract unit price each for "DOWEL" complete in place, which price shall include the furnishing and placing the materials, all equipment, tools and labor necessary thereto.

ITEM 10: Square foot of sidewalk slabs raised\*(by Method of Mudjacking) to grade

### TECHNICAL SPECIFICATION 258C SIDEWALK MUDJACKING

#### SCOPE OF WORK

This section covers the furnishing of all labor, material, tools and equipment necessary to properly complete the mudjacking including, but not limited to, layout, mudhole drilling, jacking, sawing where required, hole plugging, panel blemish repair, and cleanup required to level and repair sidewalk slabs as marked in the field.

#### MATERIALS & EQUIPMENT

Dry Soil Mixture: The soil mixture use in the jacking material should be composed of lime, sand, and ground clay. The dry material shall contain the following items in the following proportions:

Lime	35%
Sand	15%
Ground Clay	50%

Cement: Portland cement to be used in mudjacking shall conform to ASTM C150 as amended to date. Cement to be used in mudjacking shall be Type 1A Portland cement.

Water: Water used shall be drinkable quality, and supplied by the Contractor.

#### Proportions:

Jacking material: "Mud" for slabjacking shall be mixed with a proportion of cement to soil mixture not less than 1 to 7. Sufficient water shall be added to provide a workable consistency. Material, once mixed shall be utilized within one hour after which, at the discretion of the Town Engineer or his designated agent, may be re-tempered by the addition and re-mixing of water.

Hole patching: Hole patching mortar shall be made with 3 parts Portland Type 1AS cement and one part mason sand.

In lieu of the above mixtures, the Contractor may substitute alternate mixtures, subject to the approval of the Town Engineer or his designated agent.

Drilling equipment and mudjacking pump shall be approved by the Town Engineer or his designated agent.

#### CONSTRUCTION METHODS

Mudjacking holes shall be drilled using methods approved by the Town Engineer or his designated agent.

Mudjack holes: Holes shall be drilled by the Contractor by whatever means are approved by the Town Engineer or his designated agent. However, the Contractor shall exercise caution to prevent the cracking of the concrete slab in which the hole is being drilled. Any slab cracked due to the drilling, excessive jack pressure, or tamping will be the responsibility of the Contractor and shall be replaced at the Contractor's expense.

Jacking: Slabs shall be raised to the required elevation and pitched as directed by the Town Engineer or his designated agent. The Contractor shall use string lines or other approved methods to level long sections of sidewalks. If required, sawcuts shall be made at sidewalk joints to allow free movement of the slab. Any sawcutting required shall be included in the mudjacking price.

Patching holes: Holes shall be cleaned the full depth of the slab by removing excess mud and wire brushing exposed sidewalks. Prior to placement of the Portland cement mortar the hole surface shall be dampened with water.

Clean up: Walks mudjacked shall be thoroughly scraped and swept after completion, but prior to patching. Surrounding grass areas disturbed due to the mudjacking shall be restored to their original state. All excess debris created by the drilling/jacking operation shall be disposed of properly.

METHOD OF MEASUREMENT AND PAYMENT

Sidewalk mudjacking will be measured per square foot and will be paid for at the unit price each, which price shall be full compensation for furnishing all material, labor, tools, equipment, maintenance and protection of traffic and incidentals necessary to complete the work. Payment for this item shall be based on the unit price per square foot and shall constitute full compensation for all labor, tools, equipment, including saw cut, dry soil mixture, cement, water, maintenance and protection of traffic and incidentals thereto as specified.

PAY ITEM	PAY UNIT
Square foot of sidewalk slabs raised*(by Method of Mudjacking) to grade	S. F.



TOWN OF NEWINGTON  
SIDEWALK CONSTRUCTION AND REPAIR  
BID FORM

Town Manager  
Town of Newington  
131 Cedar Street  
Newington, CT 06111

In accordance with the specifications, the following bid is submitted to furnish all labor, materials, tools and appliances required to complete the replacement, repairing and installation of various sidewalks within the Town of Newington, for the amount of:

BASE BID

TOTAL \$ \_\_\_\_\_

Each bidder is asked to indicate if this total DOES or DOES NOT include Item 10 (Mudjacking)

A bid bond for 10% (Ten percent) of the amount bid is attached.

The undersigned states that this bid is made in good faith and is not founded on, or in consequence of, any collusion, agreement or understanding between themselves or any other interested party.

SUBMITTED FOR

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SUBMITTED BY

Signature \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone: \_\_\_\_\_

FILL IN PRICES USING BOTH WORDS AND NUMERALS  
(NOTE ESTIMATED QUANTITIES ARE APPROXIMATE)

APPROXIMATE QUANTITIES	DESCRIPTION	UNIT PRICE	UNIT	AMOUNT
60	<u>ITEM 1:</u> Install bituminous concrete sidewalk, residential drive apron, patching per square yard. _____ Dollars and _____ cents, per sq.yd.		sq.yd.	
800	<u>ITEM 2:</u> Install new 5 (five) inch Portland cement concrete sidewalk per square feet. (Existing Base) _____ Dollars and _____ cents, per sq.ft.		sq.ft.	
800	<u>ITEM 3:</u> Install new 5 (five) inch Portland cement concrete sidewalk per square feet. (New Base) _____ Dollars and _____ cents, per sq. ft.		sq.ft.	
400	<u>ITEM 4:</u> Install new 5 (five) inch Portland cement concrete sidewalk with monolithic concrete curb. _____ Dollars and _____ cents, per sq. ft.		sq. ft.	
400	<u>ITEM 5:</u> Install new 8 (eight) inch Portland cement concrete sidewalk per square feet. (Existing Base) _____ Dollars and _____ cents, per sq. ft.		sq.ft.	
200	<u>ITEM 6:</u> Install new 8 (eight) inch Portland cement concrete sidewalk per square feet. (New		sq.ft.	

	Base) _____ Dollars and _____ cents, per sq .ft.			
200	<u>ITEM 7:</u> Install new 8 (eight) inch Portland cement concrete handicap ramp with tactile warning pad per square feet. _____ Dollars _____ cents, per sq. ft.		sq.ft.	
50	<u>ITEM 8:</u> Processed Aggregate Stone _____ Dollars and _____ cents, per ton		ton	
50	<u>ITEM 9:</u> Dowels drilled and installed in place. _____ Dollars and _____ cents, ea.		ea.	

TOTAL (Items 1 – 9) \_\_\_\_\_

Please give the total length of usable steel forms your  
company owns. \_\_\_\_\_ L.F.

APPROXIMATE QUANTITIES	DESCRIPTION	UNIT PRICE	UNIT	AMOUNT
3000	<u>ITEM 10:</u> Square foot of sidewalk slabs raised *(by Method of Mudjacking) to grade _____ Dollars and _____ cents, per sq.ft.		sq.ft.	

TOTAL (Item 10) \_\_\_\_\_

TOTAL (Items 1 - 10) \_\_\_\_\_

TOWN OF NEWINGTON  
SIDEWALK CONSTRUCTION AND REPAIR

EXHIBIT ONE

The following are the Town of Newington's general sidewalk specifications required of all contractors performing sidewalk work within Town limits, including those adding sidewalks as part of new roads, etc. Although not developed specifically for this bid, they are incorporated as part of the bid requirements and Contract Documents.

Note: Before concrete is ordered, notify Town Engineering Department (Phone 665-8570) for required inspection.

Forms:

Forms are to be made of standard steel construction or if necessary 2" x 6" wood. 2" x 4" wood forms are not permitted. 2" x 8" wood forms could be used when crossing a driveway. 8" sidewalk to be formed to full depth.

Expansion joints must be placed every 15' from the beginning and end of every pour and where the 5" deep concrete meets the 8" deep concrete.

Expansion joint material (Korkpac or equal) must be 1/2" x 5". Two 5/8" x 24" long smooth steel bars are to be used at every expansion joints.

Expansion joints are to be placed in forms before concrete is poured. Joints must not be pushed through wet cement. The steel bars are to be asphalt dipped or foil covered at both ends through expansion joint. This whole assembly is to be placed in forms before pour. Forms must be sprayed with oil and stone base wet down.

Cross slope for a 4' walk is 1" slope toward gutter unless approved otherwise. Slope for handicap ramp is to be a maximum of 1" per foot.

Sidewalk radii may be formed with plywood or flexible metal if properly supported and pinned. Forms must remain in place for 48 hours for commercial drives or high early strength concrete may be used if next day access is desired.

At least one lane of access must be open to traffic at all times.

Concrete and Stone Base:

Concrete must be Class "F" 1:2:3 with 60%-3/4" stone and 40%-1/2 inch stone. A minimum strength of 4000 psi is needed. Process stone must be 8" deep, compacted every 6". The concrete must be 5" deep. The processed stone shall meet Conn. D.O.T. specifications form 816 and must be pre-approved by the Town Engineer before placement.

NOTE: When crossing a driveway, the material depths are different.

The crushed process stone must be 5" deep across driveway.

6" x 6" No. 8 gage welded wire matting must be placed over stone. Concrete must be 8" deep across a driveway.

Concrete must be able to pass a slump test. Allowable slump is between 1 ½" and 3". Compacted stone should be sprayed with water before concrete is poured. Concrete will be broom finished.

No water is to be added to the mix without Town Engineer or his designated agent's approval.

#### Curing Covers:

Acceptable covers are cotton curing mats, waterproof paper or liquid membrane – forming curing compound.

Lighted barricades should be placed around new walks and all excavations at end of day's work. Any work destroyed by weather or by vandals will not be accepted and Contractor will be responsible for replacement.

Lawn area along new walk should be rough graded after forms are removed to eliminate any trip hazard. Fine grading and seeding to take place when weather permits and as soon as possible. Spring – April 1<sup>st</sup> to June 15<sup>th</sup> Fall – August 15 to October 15<sup>th</sup>.

#### Important Notes:

Sidewalk construction in State Highways will require permits from the State Highway Department and municipal roadways will require Permits from the Town of Newington. Both permit processes require permit fees, bonds and insurance, license with forms available from the appropriate agency. Fees will be waived for work on town roads. Location of underground utilities is only approximated. "CALL BEFORE YOU DIG" 1-800-922-4455 must be notified 48 hours in advance of any on-site or off-site excavation.

#### Curing Compound

If curing compound is used, it should be applied as follows: As soon as the concrete has hardened enough so that the surface will not be marred, curing of concrete shall be accomplished using white pigmented curing compound conforming to "Specification for Liquid Membrane – forming compounds for Curing Concrete" (ASTM Designation: C-309). The curing compound shall be applied by hand operated or power driver spray equipment immediately after the concrete has been given its final finish. The concrete surface shall be moist when the coating is applied, apply two smooth and even textured coats to ensure complete coverage. The second coat, shall be applied at right angles to the first. Such compounds shall be applied in accordance with the manufacture's recommendations.